



## ENVIRONMENTAL FACT SHEET

"If a simple and healthful change in eating habits, along with a localization of most food production and a major shift toward organic farming were to take place over the next generation, food production and distribution could be weaned from their current heavy dependence on fossil fuels. In the process, the enormous suffering now inflicted on livestock would be greatly reduced. The question is not whether this is possible--it is whether we will do it."

-- World Bank economist Herman E. Daly and philosopher John B. Cobb, Jr., For the Common Good, New York: Farrar, Straus & Giroux, 1989.

## WHAT ARE THE ENVIRONMENTAL IMPACTS OF CONTEMPORARY AGRICULTURE?

### Consumption of Resources

#### Land

Agriculture uses an enormous amount of our natural resources, in large part to produce animal products. Almost half of the land in the United States is used to grow feed crops, or for pasture and range. According to the U.S. Department of Agriculture (USDA), nearly 40 percent of the world's grain products, and 70 percent of U.S. grain produced, is fed to farm animals.

#### Grain

Converting feed into animal products is notoriously inefficient. For example, it takes almost seven pounds of grain and soy to produce one pound of pork. The amount of grain fed to farm animals could feed five times as many people if they were to consume it directly rather than in the form of animal products.

#### Water

Animal agriculture also consumes a staggering amount of water. For instance, to produce just one pound of grain-fed meat requires from 300 to 500 gallons of water, and U.S. poultry operations use 96.5 billion gallons of water annually. To supply a person with meat, milk, and eggs each day requires one hundred gallons of water per day, which is estimated to be as much as is used for all other household purposes combined.

#### Energy

In addition, agriculture uses up vast amounts of energy, with meat leading in the amount of energy used per pound of product served. For example, it takes fifteen times more energy to get pork to the consumer's plate than fresh fruit and vegetables. Cornell University Professor David Pimentel has estimated that if the diet of the world's population was obtained using methods as energy intensive as those of the U.S., all known oil reserves would be consumed in a mere twelve years.

#### Pollution

Not only does contemporary animal agriculture use up enormous amounts of precious resources, it also pollutes and destroys them. The Environmental Protection Agency (EPA) has classified agriculture as

the leading cause of water pollution, resulting in serious consequences for the wildlife and ecology of lakes and rivers. One-third of *nonpoint pollution* (pollution originating from an unspecified source) consists of animal waste. About two billion tons of animal manure are generated each year in the U.S. alone. Agricultural chemicals are primary sources of water pollution and have been found in the groundwater of most states. Among other problems, this can adversely affect human and animal health by contaminating drinking water.

Additionally, an estimated 100 million acres of U.S. cropland have already been severely degraded and abandoned.

#### **WHY IS CONTEMPORARY ANIMAL AGRICULTURE SO ENVIRONMENTALLY PROBLEMATIC?**

Farm animals themselves are not inherently environmentally destructive, but rather the prevailing methods used to obtain animal products are. Animals on traditional family farms have usually been ecologically well integrated. For the last fifty years there has been a trend toward replacing traditional family farms with corporate-owned or contracted factory-like animal production systems. The objective of factory "farms" is to keep huge numbers of animals together, each confined in as small a space as possible, in the name of efficiency. The vast majority of farm animals now spend their entire lives crowded, in some cases by the tens of thousands, inside buildings that are designed for maximum productivity rather than for the animals' health and well-being. Millions of farm animals are kept in *feedlots*--large outdoor corrals, often with no shade or shelter.

Concentrating so many animals together in this way breaks the ecological cycle and causes suffering and disease. Furthermore, animal wastes are transformed from valuable soil nutrients into hazardous waste because there are simply too many animals for the surrounding land to accommodate.

#### **WHAT ENVIRONMENTAL IMPACTS CAN GRAZING ANIMALS CAUSE?**

Responsible grazing management, practiced by some ranchers, can actually improve land. While more extensive outdoor systems are advocated, inappropriate practices can be gravely problematic.

Approximately half of the western United States is publicly owned, of this land roughly 75 percent is leased for grazing. Adding in other publicly and privately grazed lands, produces a total of 70 percent of the West being open to grazing. This region is a fragile environment where regeneration occurs slowly. In contrast to the region's native wildlife, domesticated cattle and sheep have destructive grazing patterns. After more than a century of unchecked grazing, 35 percent of U.S. grazing land has been severely desertified. The West cannot sustain the millions of domestic animals grazing it.

In addition, the USDA's Animal Damage Control program used tens of millions of tax dollars to poison, trap, and shoot millions of coyotes, foxes, and other wild animals last year. Many were killed purportedly to protect cattle, sheep, and crops.

#### **HOW DOES CONTEMPORARY AGRICULTURE EFFECT RAIN FORESTS?**

Cattle from Central American rain forests are primarily used as a source of cheap beef for fast-food restaurants in the U.S. Converting forests to grazing land destroys wildlife habitats, endangering an indeterminable number of animal and plant species. Soils are very thin in most tropical forests, and, once cleared, they can support cultivation for only a few years before rains leach out nutrients and erode the vital topsoil, laying the land to waste. Almost two-thirds of Central America's rain forests have already been cleared or severely degraded, in large part as a result of cattle ranching, which is often subsidized by the governments of those countries.

The great demand for animal feedstuffs encourages people in third world countries to abandon sustainable farming practices in order to grow cash crops for export. Profits are short-lived, however, as the marginal lands quickly erode, contributing to poverty, malnutrition, and the loss of wild lands.



## IS THERE A BETTER WAY TO FARM?

Yes. There are farmers and ranchers who work to make a living in cooperation with their land and animals, rather than treating the soil like "dirt" and animals as if they were commodities. These farmers practice Humane Sustainable Agriculture (HSA), which produces adequate amounts of safe, wholesome food in a manner that is

- o ecologically sound
- o economically viable
- o socially equitable
- o humane

Farmers practicing HSA emulate natural cycles and recycle animal wastes and other crop nutrients on their farms. They rely more on their own on-farm resources than on externally derived ones. Animals are given sufficient room for normal behavior and are kept at appropriate population densities so that their wastes are not in excess of that which can be accommodated by the surrounding land. HSA producers employ rotational grazing and other management systems that restore fertility to worn-out pastures without polluting waterways.

Returning grazing animals to grass-feeding systems, and away from the prevailing grain-based systems, would reduce the amount of energy required by about 60 percent, and the amount of land required by about 8 percent. An ample amount of protein would still be produced, while 300 million tons of grain would be made available.

If not overstocked, land that is unsuitable for crop production can support cattle, sheep, and goats, all of whom convert the otherwise unusable cellulose in grass and shrubs into protein. Holistic range management and *rotational grazing methods*, whereby appropriate breeds and numbers of animals graze seasonally, can actually improve rangeland, while guard dogs, herders, and other nonlethal methods can protect domestic animals from predators. Geese, chickens, and hogs can also play a vital role in weed and pest control in ecological farming systems.

The adoption of sustainable agricultural practices can reduce the use of fertilizers, pesticides, irrigation, and energy, making agriculture environmentally sound while at the same time making our food supply a safer one, improving conditions for animals, and increasing profits for farmers.

## HOW CAN I CHOOSE A MORE HUMANE DIET?

America's unnecessarily destructive and excessive production of meat and other animal products, and the subsequent overconsumption of them, is the cause of many of our health problems as well as those of our environment. A change to more humane and sustainable systems can lead to a revolution in our nation's food system that will benefit all. More dollars flowing to humane sustainable farms will encourage others to farm this way, while less money spent on monoculture crops and factory-farmed products will make them less economically viable.

To help choose a more humane diet, The HSUS encourages you to consider the 3 R's when you shop or dine out:

- o **Refine** your diet by purchasing products obtained from more humane and sustainable systems. Shop at farmers' markets, health food stores, and food co-ops, all of which are likely to carry more humanely and sustainably raised food products. Look for words like "free-range," "free-roaming," "free-running," or "uncaged" on meat and egg labels. The Humane Consumer and Producer Guide, available from The HSUS, will help you locate sources of these products. **Reduce** your consumption of animal products, for your own health as well as that of the environment. **Replace** animal products with other foods.
- o Demand that any dairy products you buy be obtained from cows who have not been injected with recombinant (synthetic) Bovine Growth Hormone (rBGH).

o Get involved in the efforts of public-interest groups to require that food be labeled in terms of how and where it was produced and processed.

We encourage you to join with us in the transition to an agriculture that is better for animals, better for the environment, and *Good for You!*

(References available)

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